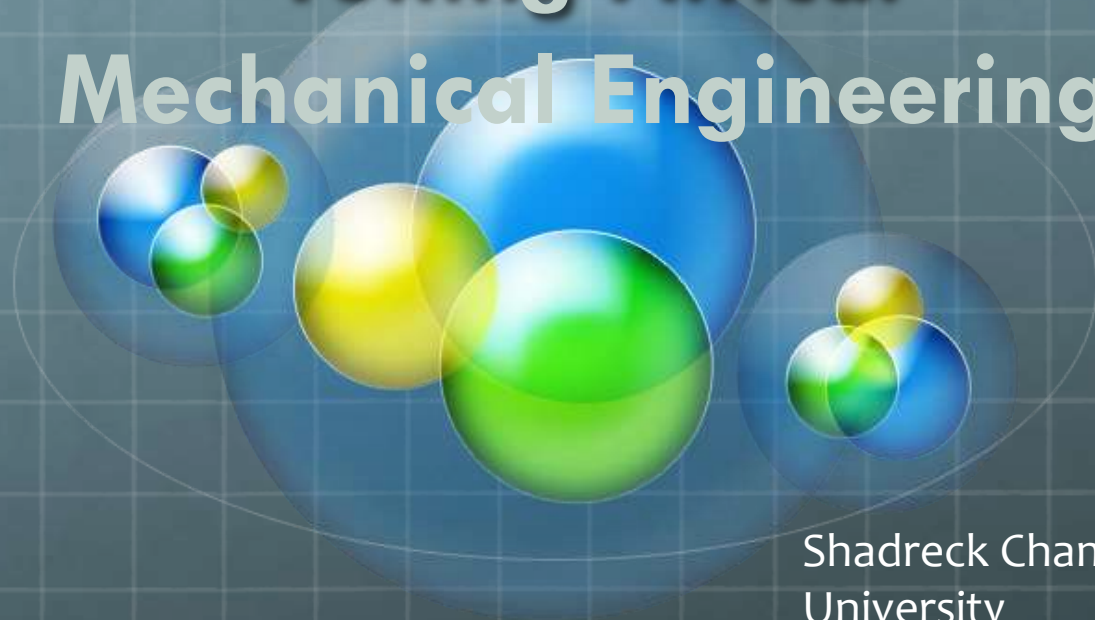
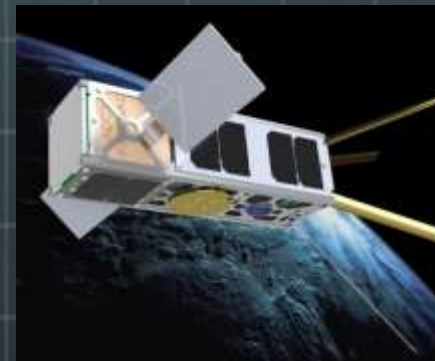
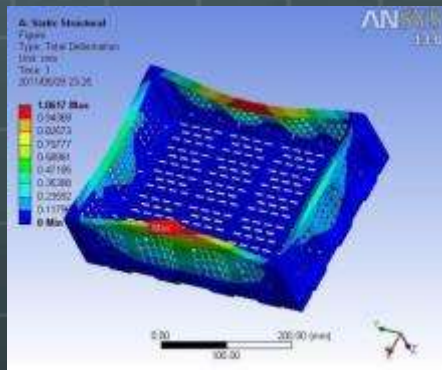


Tuning Africa: Mechanical Engineering



Shadreck Chama- Copperbelt
University

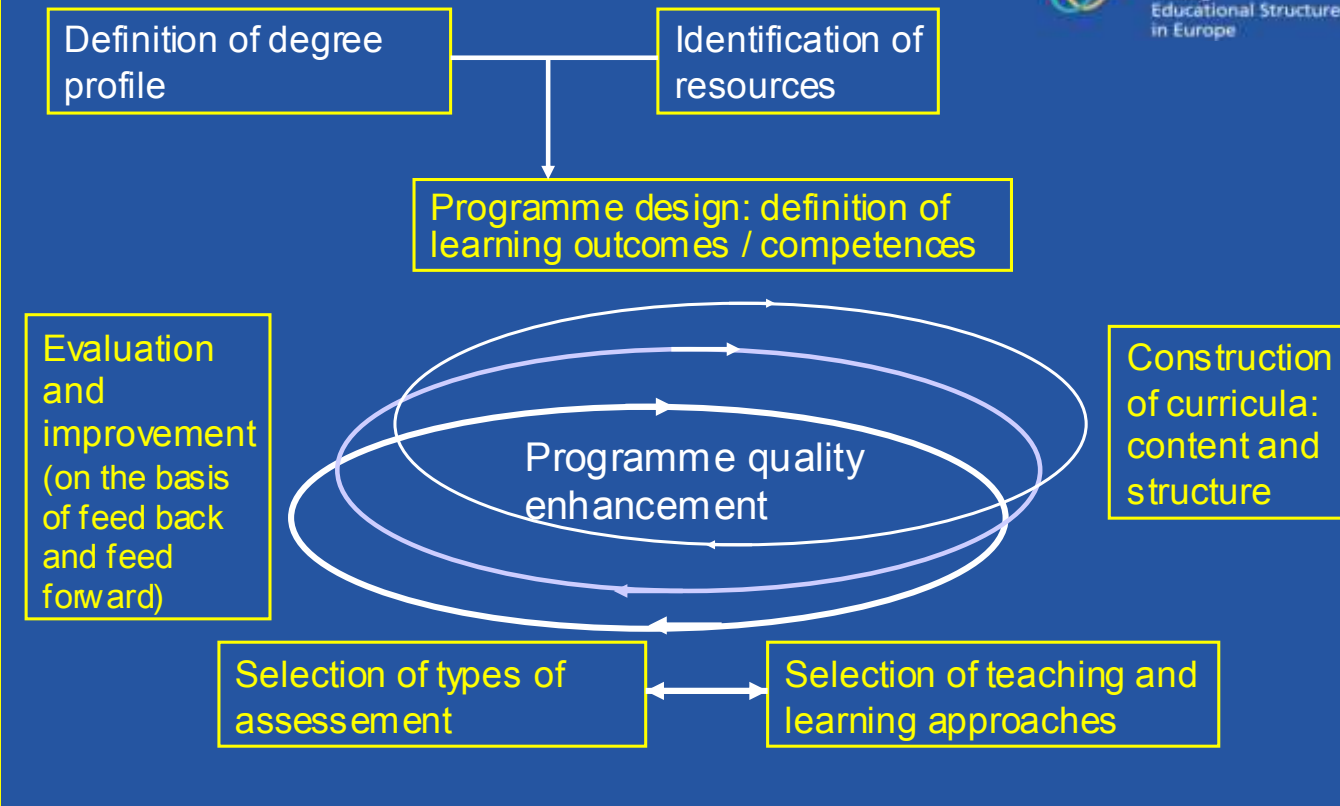


JOHANNESBURG APRIL 2017

IMAGES COURTESY OF DEPARTMENT OF MECHANICAL ENGINEERING CPUT

TUNING MECHANICAL ENGINEERING

THE TUNING DYNAMIC QUALITY DEVELOPMENT CIRCLE



TUNING MECHANICAL ENGINEERING WORKSHOPS

Institution	Workshop Topic	Peer Reviewers	Institutional procedures for organising a workshop
CURRICULUM DESIGN			
Cairo University Kwame Nkrumah University of Science and Technology	How to allocate the competence “Ability for conceptual thinking, analysis, and synthesis” into a curriculum?	Charles AWONO ONANA Yamen MAALEJ	Workshops are organised at the Department level/Faculty and College level.
University of Malawi- The Polytechnic	Introduction to curriculum development using the Tuning methodology	Venkata Ramayya ANCHA Shadreck CHAMA	Workshops are organised at the Department level/Faculty and College level.
Dilla University	Effective implementation of cooperative learning	Trollip Zwelethu NGEWANA Takyi GABRIEL	Staff development centre. A proposal used for the workshop required

TUNING MECHANICAL ENGINEERING WORKSHOPS

Institution	Workshop Topic	Peer Reviewers	Institutional procedures for organising a workshop
-------------	----------------	----------------	--

CURRICULUM DESIGN

Egypt-Japan University of Science and Technology (E-JUST)	How to improve students' understanding in your coursework?	Chahinaz, A. Saleh ABDELGHANY Venkata Ramayya ANCHA Baye Molla TIKUYE	The workshop is organised at institutional level through the graduate school.
Cape Peninsular University of Technology	Teaching methods geared towards improving the pass rate for the at risk subjects within the faculty of Engineering	Moses Phenias Mngwapa CHINYAMA	Workshops are organised at the Department level and School/College level
Bouira University	New approaches in the preparation of terms of reference of training	Charles AWONO ONANA Yamen MAALEJ	Workshops are organised at Departmental level

TUNING MECHANICAL ENGINEERING WORKSHOPS

Institution	Workshop Topic	Peer Reviewers	Institutional procedures for organising a workshop
CREDIT SYSTEM AND STUDENT WORK LOAD			
Copper-belt University, Zambia	Determination of student workload – from theory to practice	Moses Phenias Mngwapa CHINYAMA Chahinaz, A. Saleh ABDELGHANY	Centre for academic development is responsible for the training, the centre get approval from Deputy Vice Chancellor.
National Engineering School of Tunisia	The importance of using credit system in university and across universities	Moses Phenias Mngwapa CHINYAMA	Workshops are organised at the Department level and School/College level.
University of Lubumbashi, DRC	Harmonisation of credit system and student workload in	Noureddine ABDELBAKI Charles AWONO	Workshops are organised at the Department level and

TUNING MECHANICAL ENGINEERING WORKSHOPS

Institution	Workshop Topic	Peer Reviewers	Institutional procedures for organising a workshop
-------------	----------------	----------------	--

ILOS AND ALIGNMENT

University of Yaonde I	Introduction to the methodology of alignment of teaching and learning to ILOs in Mechanical Engineering.	Masaaki SUZUKI Shadreck CHAMA	Workshops are organised at the Department level and School/College level.
University of Malawi-The Polytechnic	Aligning course/module ILOs to teaching, learning and assessment	Venkata Ramayya ANCHA Shadreck CHAMA	Workshops are organised at the Department level/Faculty and College level.

TUNING MECHANICAL ENGINEERING WORKSHOPS

Institution	Workshop Topic	Peer Reviewers	Institutional procedures for organising a workshop
-------------	----------------	----------------	--

ASSESSMENTS

Cape Peninsular University of Technology Jimma University Stellenbosch University	How to engage students in the Assessment?	Moses Phenias Mngwapa CHINYAMA	Workshops are organised at the Department level and School/College level
---	---	--	--

Jimma University	Assessment for the competence-based education (TOT) for course team leaders		Workshops are organised by the Academic resource development centre.
------------------	---	--	--

TUNING MECHANICAL ENGINEERING PUBLICATIONS-COMPUTATIONAL TUNING

Activity	Responsible person	Timelines
Concept note COMPUTATIONAL TUNING	Charles	1 st Week of May, 2017
Draft paper COMPUTATIONAL TUNING		1 st Week of May, 2017
Visualisation of results	Venkata	1 st week of June, 2017
Problem solving:	Charles	August 2017
<i>Simulation using Monte Carlo Optimisation, optimal control, optimal allocation of resources, operations research, visualisation of results</i>		

TUNING MECHANICAL ENGINEERING PUBLICATIONS-COMPUTATIONAL TUNING

Activity	Responsible person	Timelines
Finalisation of concept note, result visualisation, problem formulation and solution validation	All members of the SAG	October 2017
Trial runs in partner Universities	All members of the SAG	October, 2017
Papers for publications	All members of the SAG	October and November 2017



**THANK YOU FOR LISTENING
AND GOD BLESS**